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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,531	07/19/2000	Dr. Werner Groh	032745-023	2261
21839	7590	07/02/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			SALVATORE, LYND A	
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1771

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/619,531	Applicant(s) GROH ET AL.	
	Examiner Lynda M Salvatore	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-12 and 14, 15 is/are rejected.
- 7) ☐ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 04/21/04 have been fully considered but they are not persuasive for reasons set forth herein below.

Claim Rejections - 35 USC § 112

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 12 stands rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a pre-consolidated non-woven layer, does not reasonably provide enablement and/or description for the negative limitation of a non-woven layer which is not pre-consolidated.

Applicant argues that since claim 12 is an originally filed claim, there is a strong presumption that an adequate written description has been presented for the embodiment and that scope of enablement in the present application is commensurate in scope with the rejected claim when considered as a whole. Applicant asserts that the entire specification and the working examples when coupled with the technical knowledge possessed by those of ordinary skill in the art clearly enable those of ordinary skill to practice the presently claimed invention (Applicant's response, 8-9). These arguments are not found persuasive on the grounds that the Examiner maintains that the claims present in an application must be properly enabled before patented. Specifically, it is the position

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of the Examiner that the issue is not the negative limitation or lack of support found in the specification but rather enablement for making a non-woven that is not consolidated since a nonwoven, by definition, inherently includes some form of consolidation to at least a degree, to hold the fibers together enough for handling, processing, etc. It is noted that the specification provides support for a nonwoven fabric which is optionally needle-punched prior to forming the sandwich composite (specification, page 9, lines 19-20). However, since Applicant's use of the term consolidation is broad (e.g., shrinking, needle-punching, calendaring, or binder/chemical) and since a nonwoven inherently is consolidated in some manner, claim 12 is not enabled.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 1,3,5-11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Schops et al., US 6,235,657 and further in view of Hiers, RE 33,023.

Applicant argues a lack of motivation to combine the references of Baravian et al., and Shops et al. Specifically Applicant asserts that no motivation exists to finally consolidate the composite of Baravian et al., as taught by Schops et al. Applicant argues that consolidation only takes place in the non-woven layer of the Baravian et al., composite and to finally coat the composite with a binder would render the composite of Baravian et al., unfit for its desired purpose (Applicant's response, 11). This argument is not found persuasive on the grounds that while Baravian et al., does not explicitly state

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finally consolidating the composite with a binder there is nothing on record to evidence that doing so would negatively impact the intended final use. Support for said argument is found in the secondary reference of Schops et al., which teaches finally consolidating a composite which is used in the same capacity as the Baravian et al., composite. With respect to Applicant's argument that Schops et al., teaches three layers whereas Baravian et al., teaches only two layers, the Examiner respectfully points out that Baravian et al., clearly teaches either a three layer or two layer reinforcement structures (Column 2, 7). With regard to Applicant's argument regarding the lack of a teaching to a woven mineral fiber layer, the Examiner respectfully points out that Applicant is claiming a woven web or a scrim of glass (Applicant's response, 11). As such, the Examiner maintains that the scrim of glass limitation is met. Baravian et al., teaches a two-layer textile reinforcement comprising a thermostabilized consolidated non-woven first base layer needled to a second mineral fiber layer, which may in the form of a grid, scrim or cloth of continuous or discontinuous mineral filaments (Abstract). With regard to Applicant's argument that there is no teaching to any needling technique, the Examiner maintains that no specific needling technique is set forth in claim 1 and Baravian et al., discloses that layers are needled together. With regard to the penetration limitations, the Examiner maintains that needling inherently passes fibers through the layers; however, in an effort to substantiate this supposition the Examiner relied upon Hiers, RE 33,023 as evidence. With regard to Applicant's assertion that the organic filaments, which penetrate the lower surface and lie adjacent thereto act to "interlock" or anchor the layers of the laminate, and also serve to anchor the binders used in the final consolidation to the laminate, the Examiner respectfully points out that Applicant has not recited such limitations (Applicant's

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response, 13). Thus the Examiner maintains that the needling structures illustrated by Heirs, RE 33,023 meet the presently claimed needling limitations.

6. Claim 2 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Schops et al., US 6,235,657 and in view of Hiers, RE 33,023 as applied to claim 1 above and further in view of Heidel et al., US 5,171,629.

The above rejection is maintained and Applicant has not presented any new arguments for which to consider.

7. Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Schops et al., US 6,235,657 and in view of Hiers, RE 33,023 as applied to claim 11 above and further in view of Binnersley et al., US 4,816,327.

The above rejection is maintained and Applicant has not presented any new arguments for which to consider.

8. Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Schops et al., US 6,235,657 and in view of Hiers, RE 33,023 as applied to claim 1 above and further in view of Johnson, US 5,571,596.

The above rejection is maintained and Applicant has not presented any new arguments for which to consider.

Allowable Subject Matter

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9. Applicant disagrees with the Examiner's interpretation of claim 4. Specifically, Applicant argues that the specification indicates that the synthetic fibers may be pre-consolidated after formation of the non-woven. While limitations from the specification cannot be imported into the claims, by Applicant's own admission it is the position of the Examiner that claim 4 is not found allowable. As such the allowability of claim 4 is hereby withdrawn.

10. Claim 13 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With regard to claim 13, the combination of prior art fails to teach or fairly suggest the composite set forth in claim 1 specifically comprising a woven web of continuous glass filaments as warp yarns and glass staple fiber yarns as weft yarns. An updated art search did not produce any new substantial art for which to base a rejection and presently no motivation exists to combine references to form an obvious type rejection.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. In addition, previously allowed claim 4 is rejected 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Schops et al., US 6,235,657 and further in view of Hiers, RE 33,023.

With specific regard to claim 4, the patent issued to Baravian et al., teaches a two-layer textile reinforcement comprising a thermostabilized consolidated non-woven first base layer needled to a second mineral fiber layer, which may in the form of a grid, scrim

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or cloth of continuous or discontinuous mineral filaments (Abstract). Baravian et al., teaches the application of heat to consolidate the non-woven and preferably comprises a sheet of continuous filaments of a thermoplastic synthetic polymer, having no binder fibers, such as a polyester, co-polyester, or polyamide (Column 2, 63-65 and Column 3, 45-55). Thus it is the position of the Examiner that calendaring a synthetic non-woven sheet under heat and pressure would effectively heat shrink or “thermally pre-consolidate” the fibers comprising the non-woven layer (Column 3, 1-5).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 24, 2004

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CHERYL A. JUSKA
PRIMARY EXAMINER